

Journal of Materials Chemistry C

Materials for optical, magnetic and electronic devices

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IN THIS ISSUE

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Cover

See Yuichi Hirai, Rémi Métivier, Clémence Allain *et al.*, pp. 1952–1957.
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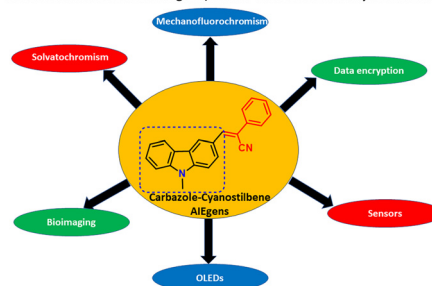
REVIEW

1923

Symphony of light: AIE and MFC in carbazole-based cyanostilbenes

A. Afrin and P. Chinna Ayya Swamy*

"Molecular Brilliance: Unveiling AIE/MFC in Carbazole-Based Cyanostilbenes"

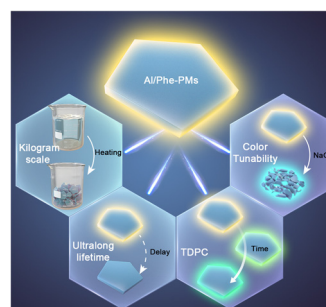


COMMUNICATION

1945

Achieving time-dependent and color-tunable ultralong room temperature phosphorescence through sodiation reconfiguration for dynamic 5D information encryption

Li Ya Liang, Ya Ting Gao, Shuai Chang, Jian Lv, Bin Bin Chen* and Da Wei Li*



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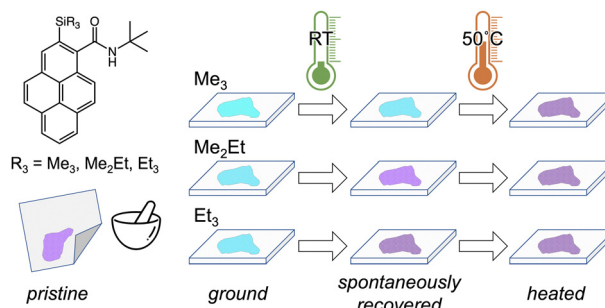
Fundamental questions
Elemental answers



1952

Mechanofluorochromism and self-recovery of alkylsilylpyrene-1-carboxamides

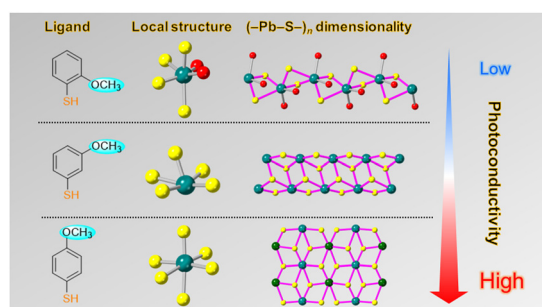
Yuichi Hirai,* Anna Wrona-Piotrowicz, Janusz Zakrzewski, Magdalena Ciechańska, Takahito Ohmura, Takashi Takeda, Takayuki Nakanishi, Rémi Métivier* and Clémence Allain*



1958

Impact of substituent position on crystal structure and photoconductivity in 1D and 2D lead(II) benzenethiolate coordination polymers

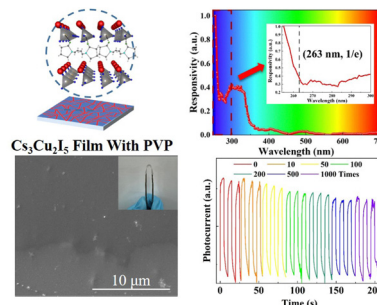
Ryohei Akiyoshi,* Akinori Saeki, Kazuyoshi Ogasawara and Daisuke Tanaka*



1965

Polymer-assisted crystal growth regulation and defect passivation for high-performance flexible solar-blind photodetectors based on copper-based halides

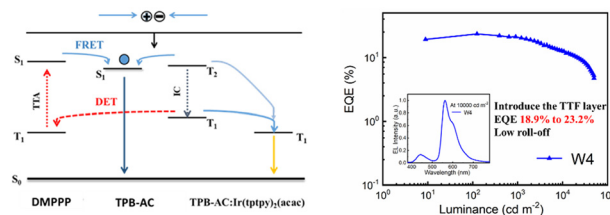
Chengjun Liu, Yuyi Zhang, Lixi Wang, Jianhua Chang, Qing Li, Xiaobing Zhang, Byung Seong Bae, Omolola Esther Fayemi, Xiaobao Xu, Jianguo Pan,* Jing Chen* and Wei Lei*



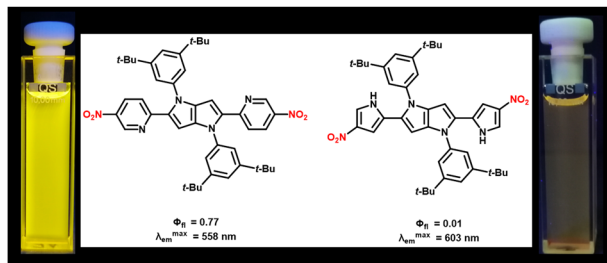
1972

High-efficiency and low-efficiency roll-off fluorescence/phosphorescence hybrid white organic light-emitting diodes based on AIEgens with hot exciton property by strategically managing triplet excitons

Guangjian Gao, Pengbo Han, Xianfeng Qiao, Yanfeng Dai, Qian Sun, Dezhi Yang, Anjun Qin,* Ben Zhong Tang and Dongge Ma*



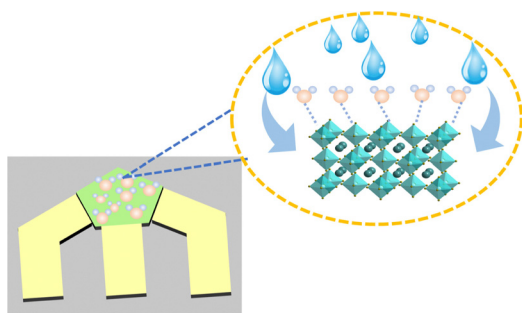
1980



The interplay of intersystem crossing and internal conversion in quadrupolar tetraarylpyrrolo-[3,2-*b*]pyrroles

Krzysztof Górski, Damian Kusy, Shuhei Ozaki, Marzena Banasiewicz, Rashid Valiev, Smruti Ranjan Sahoo, Kenji Kamada,* Glib Baryshnikov* and Daniel T. Gryko*

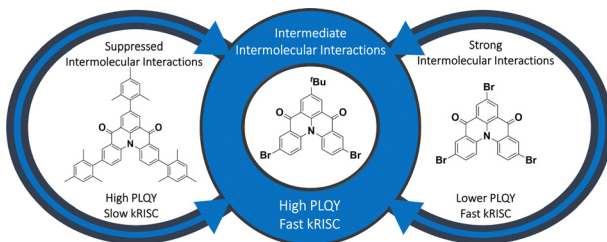
1988



Effects of halogen elements on a humidity sensor based on a thin film bulk acoustic wave resonator incorporated with $\text{Cs}_3\text{Bi}_2\text{X}_9$ ($\text{X} = \text{Cl}, \text{Br}, \text{I}$) perovskites

Lishuai Zhao, Peidong Ouyang, Xinyan Yi and Guoqiang Li*

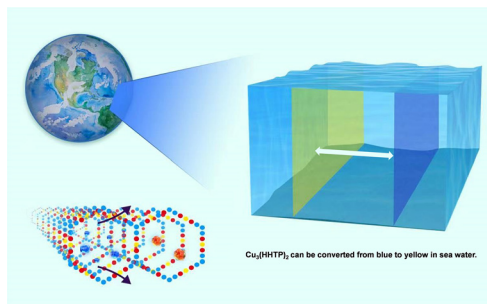
1996



Peripheral halogen atoms in multi-resonant thermally activated delayed fluorescence emitters: the role of heavy atoms in intermolecular interactions and spin orbit coupling

Hector Miranda-Salinas, Jingxiang Wang, Andrew Danos, Tomas Matulaitis, Kleitos Stavrou,* Andrew P. Monkman* and Eli Zysman-Colman*

2007



Electrochromic electrically conductive $\text{Cu}_3(\text{HHTP})_2$ films with adaptation to diverse and low-concentration water

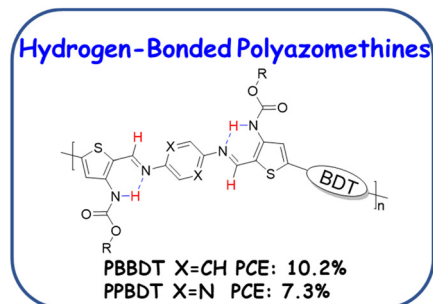
Yongsheng Liu, Xiaoyu Zhang, Ran Li, Ziqiu Lu, Xilu Wu, Chengyi Hou, Qinghong Zhang, Yaogang Li, Kerui Li* and Hongzhi Wang*



2016

Hydrogen-bonded polyazomethines for efficient organic solar cells

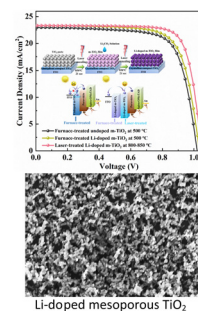
Bo Zhang, Yuanyuan Wang, Kaiwen Lin, Yinhua Zhou* and Qing Zhang*



2025

Laser processing of Li-doped mesoporous TiO₂ for ambient-processed mesoscopic perovskite solar cells

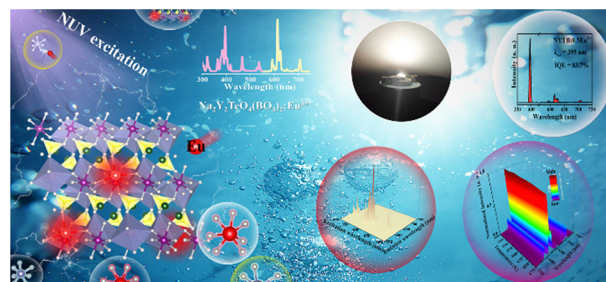
Hongbo Mo, Qian Chen,* Dong Wang, Wei Guo, Dongxu Cheng, Yang Sha, Muhamad Z. Mokhtar, Zhenyu Jia, Janet Jacobs, Andrew G. Thomas, Lin Li, Zhu Liu* and Richard J. Curry*



2037

Layered structure-induced quenching delay toward highly efficient and thermally stable red emission in Eu³⁺-activated borotellurate phosphors

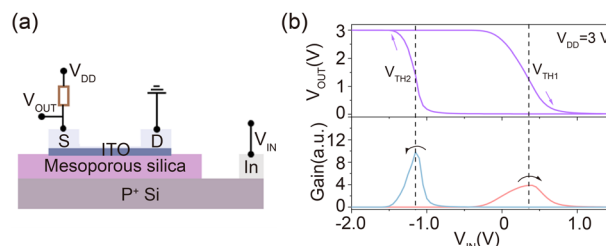
Yuefei Xiang, Hongzhi Zhang,* JunPeng Li, Hong Li, Tongsheng Yang, Canyuan Liao, Heyun Zhao and Jing Zhu*



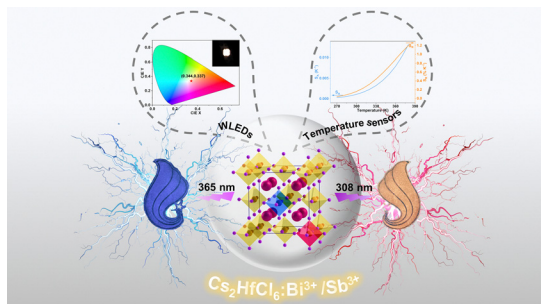
2048

A reverse Schmitt trigger with an adjustable hysteresis window implemented by mesoporous silica electrolyte-gated transistors

Linzi Liang, Kekang Liu, Zhiyuan Luo, Zhengdong Jiang, Qichang Hu and Yanghui Liu*



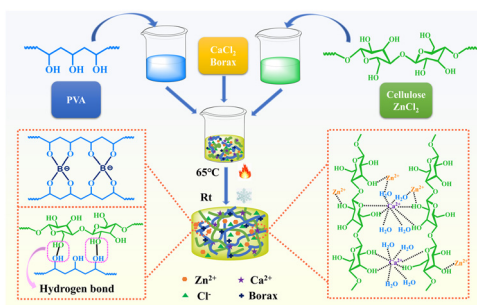
2053



Bi³⁺/Sb³⁺ co-doped Cs₂HfCl₆ vacancy-ordered double perovskites for multifunctional optoelectronic applications

Zixuan Huang, Jinju Zheng,* Hui Fu, Jialiang Jiang, Zilong Li, Chunhong Gu, Zhenhao Du, Yang Yang, Weiyu Yang and Jialong Zhao*

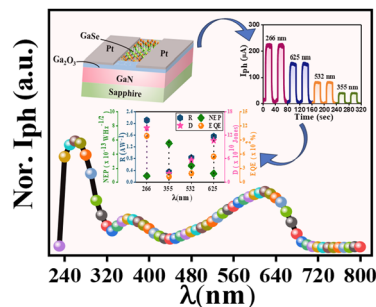
2063



Preparation of PVA/cellulose composite hydrogel electrolytes based on zinc chloride-dissolved cellulose for flexible solid-state capacitors

Ru Zhang, Chengfeng Wu,* Xuyan Liao, Axi Luo, Yidan Jing,* Ningya Yu, Shengpei Su, Xiaomin Zhang,* Jin Zhu and Guobo Deng

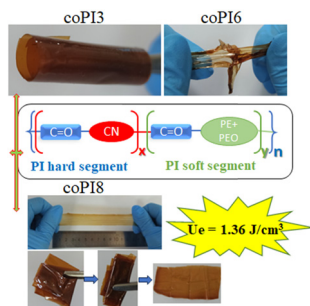
2073



A nanoflower-like GaSe/ β -Ga₂O₃ based heterostructure for highly efficient self-powered broadband photodetectors

Urvashi Varshney, Anuj Sharma, Aditya Yadav, Preeti Goswami and Govind Gupta*

2084



Tailoring the properties of semi-aromatic copolyimides through structural manipulation towards energy-storage applications

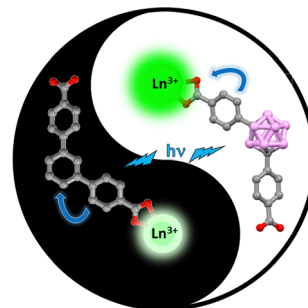
Irina Butnaru,* Adriana-Petronela Chiriac, Mihai Asandulesa, Codrin Tugui, Iuliana Stoica and Mariana-Dana Damaceanu



2101

Rationalizing the carborane *versus* phenyl-driven luminescence in related dicarboxylic ligands and their antenna effect for their Eu^{3+} and Tb^{3+} metal–organic frameworks: a combined experimental and computational study

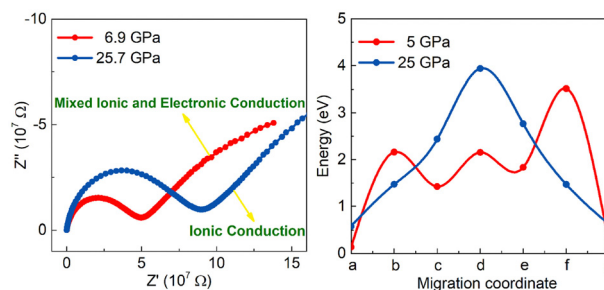
Zhen Li, Claudio Roscini, Rosario Núñez, Francesc Teixidor, Clara Viñas, Eliseo Ruiz* and José Giner Planas*



2110

Pressure effects on the ionic transport properties of LiNH_2

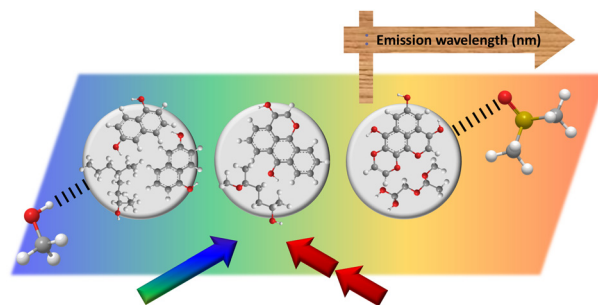
Jia Wang, Hao Liu, Li Wang, Min Cao, Xin Zhang, Chunxiao Gao and Yonghao Han*



2117

Revealing two chemical strategies to tune bright one- and two-photon excited fluorescence of carbon nanodots

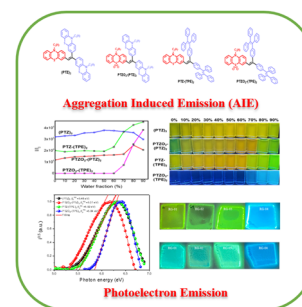
Sebastian G. Mucha, Lucyna Firlej, Filip Formalik, Jean-Louis Bantignies, Eric Anglaret, Marek Samoć and Katarzyna Matczyszyn*



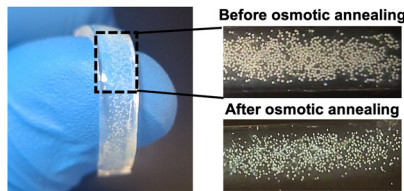
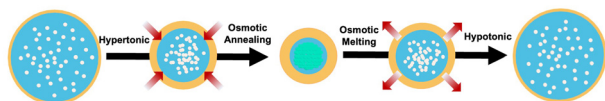
2134

Phenothiazine and phenothiazine sulfone derivatives: AIE, HTMs for doping free fluorescent and multiple-resonance TADF OLEDs

Ramakant Gavale, Melika Ghasemi, Faizal Khan, Dmytro Volyniuk, Juozas Vidas Grazulevicius and Rajneesh Misra*



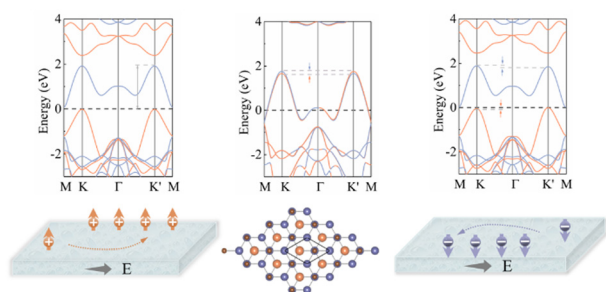
2148



Adaptive coloration enabled by the reversible osmotic annealing of chromatophore-like microcapsules

Jae-Hyun Kim, Ji-Young Lee, Jaekyoung Kim, Zhe Gong, Daniel J. Wilson, Leila F. Deravi* and Daeyeon Lee*

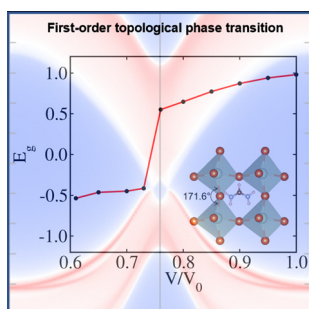
2156



Controllable dual-polarization valley physics in the strain-engineered 2D monolayer of VC₂N₄

Chengan Lei, Shiyu Cao, Zelong Gong, Xinru Li, Yandong Ma, Jian Gao, Jianqiang Bi, Rajeev Ahuja and Zhao Qian*

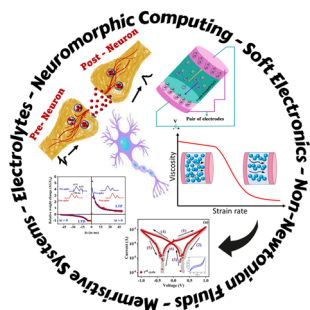
2165



Strain-driven topological quantum phase transition in (pseudo)cubic (mixed)-Cs/MA/FA halide perovskites

Ankita Phutela,* Sajjan Sheoran, Deepika Gill and Saswata Bhattacharya*

2173



Unlocking the resistive switching in Acacia Senegal-based electrolyte for neuromorphic computation

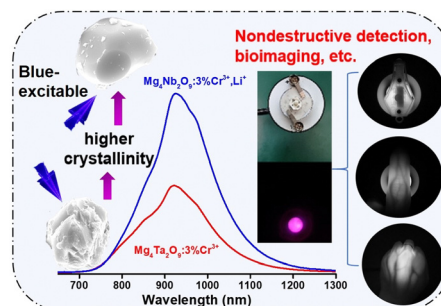
Aziz Lokhandwala, Parth Thakkar, Jeny Gosai, Suvik Oza and Ankur Solanki*



2184

Broadband short-wave infrared $\text{Mg}_4\text{Nb}_2\text{O}_9:\text{Cr}^{3+}, \text{Li}^+$ phosphor for nondestructive safety detection and biomedical imaging

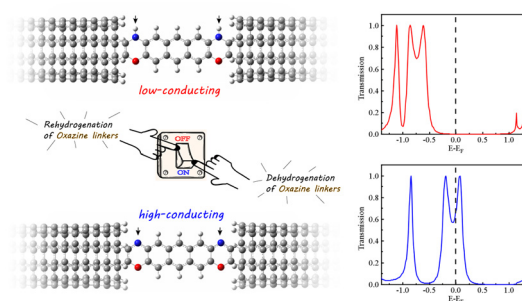
Qingyang Ding, Jincheng Wu, Dechao Yu,* Xinxin Han, Yayun Zhou, Tiantian Shen, Yunfeng Ma,* Songlin Zhuang and Dawei Zhang



2194

Oxazine: an anchoring group serving as functional kernels to construct single-molecule switches

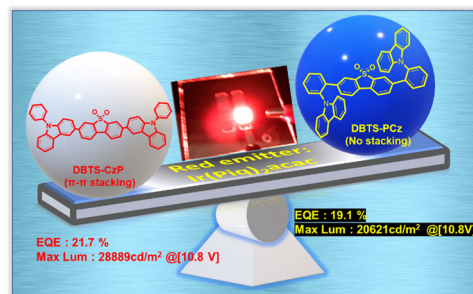
Shi Li, Yuxuan Jiang, Yudi Wang, Dongying Lin, Haoyang Pan, Yongfeng Wang, Stefano Sanvito and Shimin Hou*



2203

Perceiving the influence of phenyl-carbazole isomers on sulfone/thioxanthone-based D-A-D hosts: realizing efficient red-phosphorescent OLEDs

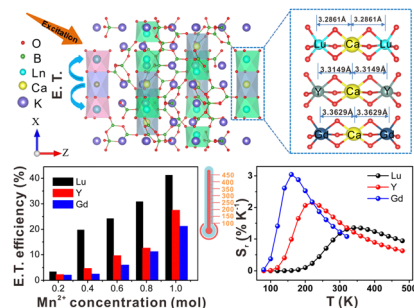
Premkumar Gnanasekaran, Yi-Ting Chen, Yun-Tzu Tseng, Kuan-Yu Su, Yu-Ting Lin, Tsz Chung Yiu, Chih-Hao Chang* and Yuan Jay Chang*



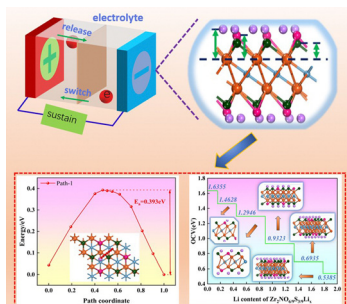
2216

Realizing a broad-scope and high-sensitivity optical thermometer based on dual-emission centers with structure confinement effect-related energy transfer

Shixiang Huang, Liuhan Yi, Feng Zhang,* Xiansheng Liu, Chao Li, Mengzhu Long and Yuhua Wang



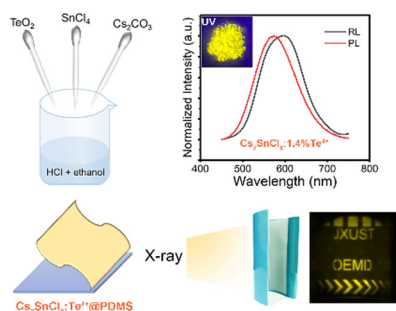
2227



First-principles study of the effect of O and S functional groups on the lithium storage properties of Zr_2N materials

Xuefeng Lu, Jupeng Qi, Junqiang Ren, Junchen Li, Hongtao Xue, Fuling Tang and Xin Guo*

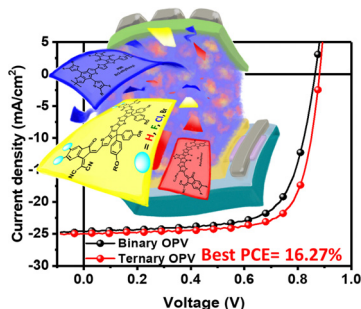
2241



Te^{4+} -doped Cs_2SnCl_6 scintillator for flexible and efficient X-ray imaging screens

Mengyao Wang, Xiaofei Qing, Tianyun Du, Chuanli Wu and Xiuxun Han*

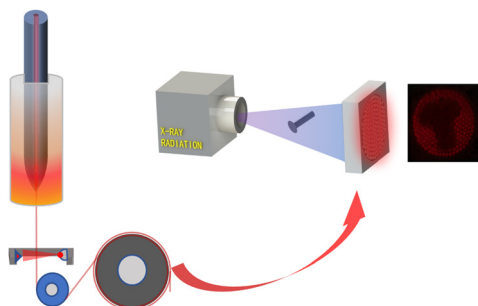
2247



Dicyclopentadithienothiophene-based non-fullerene acceptors for ternary blend organic photovoltaics

Shakil N. Afraj, Bing-Huang Jiang, Yu-Wei Su, Chien-Hung Yang, Hui-Shan Shih, Arulmozhi Velusamy, Jen-Shyang Ni, Yamuna Ezhumalai, Ting-Yu Su, Cheng-Liang Liu, Shuhelin Yau, Chih-Ping Chen* and Ming-Chou Chen*

2258



Plastic scintillation fiber with europium complexes for low-dose X-ray detection and long-distance imaging

Gang Ren, Zhouyuanhang Wang, Yan Kuai, Zhigang Cao, Feng Xu, Yu Liu, Kang Xie, Siqi Li,* Benli Yu and Zhijia Hu*

